(1) Routir
(2) SW Files 2.2
12.3.42

City of Seattle
Norman B. Rice, *Mayor*

King County
Gary Locke, *Executive*

Seattle-King County Department of Public Health

Alonzo L. Plough, Ph.D., MPH, *Director*

August 24, 1995

Ken Casten
Holnam, Inc.
Seattle Plant
5400 W. Marginal Way SW
Seattle, WA 98106

Re: **Holnam Inc. - Solid Waste Treatment Site Permit**

Dear Ken:

We have completed the review of the 1995 permit conditions, inspection reports, and field reviews for your Solid Waste Treatment Site Permit at 5400 West Marginal Way SW. The operation is in compliance with the King County Board of Health, Title 10, Solid Waste Regulations and WAC 173-304, Minimum Functional Standards for Solid Waste Handling. However, based on conditions established by the Department of Ecology, some changes need to be made to the permit. In addition, you need to provide an annual report and update the acceptable material list.

<u>Acceptable Materials</u>:
The facility will accept alternative fuels and raw materials for the manufacturing of portland cement. Use of some of the alternate materials is based on conditions established by the Department of Ecology. The list of approved alternate materials includes:

- stericycle material
- tire derived fuel
- non-hazardous recyclable fuels including; tank bottom oils, used oils, raw crude tank bottoms, heavy vacuum gas oil waste, off spec fuel oils
- petroleum contaminated soils
- fly ash
- spent sandblast grit (iron slag)
- foundry sand
- bottom ash
- aluminum silicate
- mulite sludge
- calcium carbonate
- crushed brick
- diatomaceous earth
- street sweepings/storm drain waste

USEPA SF
1185483

Any additional materials do not have our approval and should not be accepted. Additional material must be approved prior to acceptance.

Update your plan of operation to include the processed biomedical waste and water treatment plant sludge.

The Department of Ecology (DOE) has expanded the types of materials that may be accepted. Materials that were not permitted by "state only dangerous waste designation" will now be allowed. Only materials that do not designate as hazardous waste according to federal regulations(40 CFR 261) may be accepted. Materials may be recycled without testing for Washington State Dangerous Waste Criteria as referred to in WAC 173-303-100 as long as the conditions specified in DOE's May 11, 1995 letter are met.

One point of clarification from that DOE letter, condition 1 should read ...Toxicity Characteristic Leaching Procedure (TCLP) testing for metals has been conducted on representative samples of the alternative feedstock material as generated.

Petroleum Contaminated Soil Cobble:
Provide plans and details of the cobble washing area.

Annual report:
An annual report should be submitted by March 1 of each year. Provide an annual report for 1994. That report should detail the annual quantity, source and type of solid waste recycled.

Cement Kiln Dust Disposal:
Ecology has conditionally exempted your cement kiln dust from regulation as a dangerous waste. The dust is then regulated as a solid waste. The disposal of the dust must be at a permitted solid waste disposal or treatment facility and comply with all of the requirements of 173-304 WAC and our Title 10. We have no record of a solid waste permit for the Dale Strip Pit near Ravensdale. Provide information about the cement kiln dust disposal.

Please provide the annual report and updates to the plan of operation by September 25, 1995. Contact me at 296-4831 if you have questions.

Sincerely,

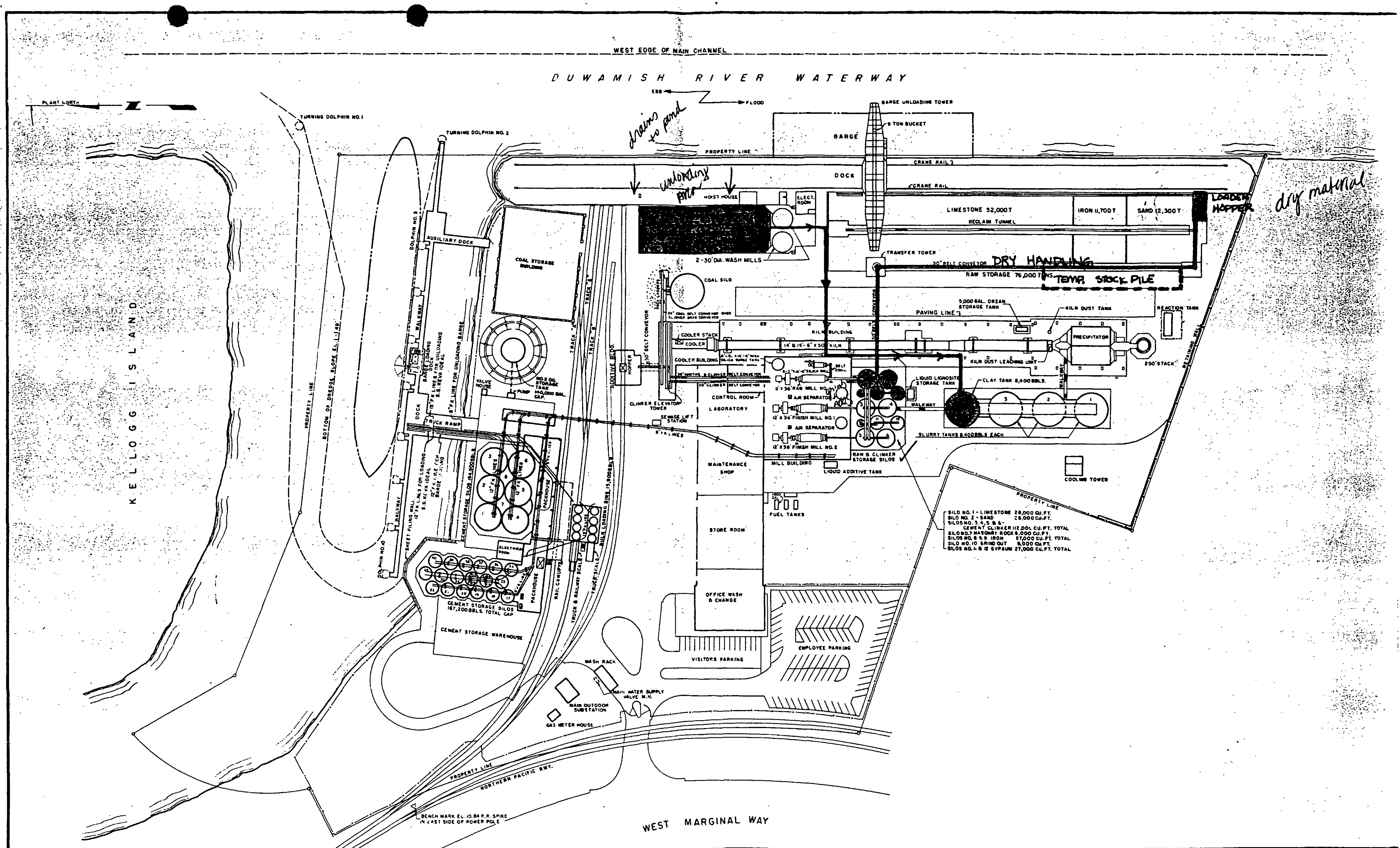
Jill Trohimovich

Jill Trohimovich, Sr. Environmental Health Specialist
Solid Waste Program

JT:gao

cc: Carl Osaki
Greg Bishop/Terry Clements
Tony Bossart/Gary Criscione
Cynthia Stewart, King County Solid Waste Division
Nancy Glaser, Seattle Solid Waste Utility
Cullen Stephenson, DOE NW Regional Office
Barb Smith, DOE NW Regional Office
Jim Nolan, PSAPCA

RECEIVED
AUG 28 1995
DEPT. OF ECOLOGY


WEST EDGE OF MAIN CHANNEL
DUWAMISH RIVER WATERWAY
EBB
FLOOD
PLANT NORTH
drains to pond
unloading area
dry material
TURNING DOLPHIN NO.1
TURNING DOLPHIN NO. 2
BARGE UNLOADING TOWER
9 TON BUCKET
BARGE
PROPERTY LINE
CRANE RAIL
DOCK
HOIST HOUSE
ELECT. ROOM
LIMESTONE 52,000 T
IRON 11,700 T
SAND 12,300 T
LOADER HOPPER
RECLAIM TUNNEL
TRANSFER TOWER
30" BELT CONVEYOR
DRY HANDLING
RAW STORAGE 76,000 TONS
TEMP. STOCK PILE
2-30' DIA. WASH MILLS
COAL SILO
COAL STORAGE BUILDING
AUXILIARY DOCK
DOLPHIN NO. 3
WALKWAY
BARGE LOADING DOCK
12" FK LINES FOR UNLOADING S.S. KEVA IDEAL
8" FK LINE FOR UNLOADING BARGE
VALVE HOUSE
PUMP
NO. 2 OIL STORAGE TANK 140,000 GAL. CAP.
TRACK A
TRACK B
ADDITIVE BLDG.
HOPPER
30" BELT CONVEYOR
24" COAL BELT CONVEYOR OVER CLINKER DRAG CONVEYOR
5,000 GAL. ORZAN STORAGE TANK
KILN DUST TANK
PAVING LINE
REACTION TANK
KILN BUILDING
COOLER STACK
COOLER
14' & 15'-6" X 50' KILN
PRECIPITATOR
250' STACK
RETAINING WALL
COOLER BUILDING
KILN DUST LEACHING UNIT
LIQUID LIGNOSITE STORAGE TANK
CLAY TANK 8,400 BBLS.
WALKWAY
SLURRY TANKS 8,400 BBLS EACH
CLINKER ELEVATOR TOWER
SEWAGE LIFT STATION
8" FK LINES
CONTROL ROOM
LABORATORY
12' X 36' RAW MILL NO.
AIR SEPARATOR
12' X 36' FINISH MILL NO. 1
AIR SEPARATOR
12' X 36' FINISH MILL NO. 2
MILL BUILDING
RAW & CLINKER STORAGE SILOS
LIQUID ADDITIVE TANK
MAINTENANCE SHOP
FUEL TANKS
STORE ROOM
OFFICE WASH & CHANGE
COOLING TOWER
SILO NO. 1 - LIMESTONE 28,000 CU.FT.
SILO NO. 2 - SAND 28,000 CU.FT.
SILOS NO. 3, 4, 5 & 6 - CEMENT CLINKER 112,000 CU.FT. TOTAL
SILO NO. 7 MASONRY ROCK 6,000 CU.FT.
SILOS NO. 8 & 9 IRON 27,000 CU.FT. TOTAL
SILO NO. 10 GRIND OUT 8,000 CU.FT.
SILOS NO. 11 & 12 GYPSUM 27,000 CU.FT. TOTAL
KELLOGG ISLAND
PROPERTY LINE
BOTTOM OF DREDGE SLOPE EL. (-)-49'
DOCK
TRUCK RAMP
SHEET PILING WALL
12" FK LINES FOR LOADING S.S. KEVA IDEAL
DOLPHIN NO. 10
CEMENT STORAGE SILOS 84,900 BBLS
PACKHOUSE
BULK LOADING BINS 15,900 BBLS
ELECTRICAL ROOM
CEMENT STORAGE SILOS 167,200 BBLS. TOTAL CAP
PACKHOUSE
RAIL CANOPY
TRUCK & RAILWAY SCALE
TRUCK SCALE
CEMENT STORAGE WAREHOUSE
WASH RACK
MAIN WATER SUPPLY VALVE M.H.
MAIN OUTDOOR SUBSTATION
GAS METER HOUSE
VISITORS PARKING
EMPLOYEE PARKING
PROPERTY LINE
NORTHERN PACIFIC RWY.
BENCH MARK EL. 10.84 R.R. SPIKE IN EAST SIDE OF POWER POLE
WEST MARGINAL WAY
60 0 60

REVISION F	REVISION E	REVISION D	REVISION C	REVISION B	REVISION A
			ADDED COAL STORAGE BUILDING F.E.L. 12-1-77	REVISED COAL TRACK AND ADDED 1000 GAL FUEL TANK F.E.L. 10-1-77	ADDED COAL PROJECT 056-101 LT 9-9-76

IDEAL CEMENT COMPANY		
ENGINEERING DEPARTMENT		DENVER, COLORADO
ISSUE	GENERAL PLAN	DRAWN A.C. 10-13-69
		CHECKED D.W.S. 7-14-70
		APPROVED
		SCALE 1" = 60'
	SEATTLE PLANT	QCD-6939

Seattle Plant
5400 West Marginal Way S.W.
Seattle, Washington 98106
206/937-8025
Fax 206/932-3803

HOLNAM INC

Plan of Operation

Origin

Materials will primarily be collected from King County. However we will accept materials outside of King County. Material originating outside of King County must meet the conditions set fourth by King County Public Health with approval of this permit. In addition they must meet all requirements listed within the permit application.

Acceptance

Materials containing petroleum contamination must pass all testing procedures defined in this application. Acceptance of gasoline containing soils will be limited to materials ranging from 0 ppm to 80,000 ppm. Diesel/Oil contamination will range from 0 ppm to 90,000 ppm. These calculations were based on BTU level in gasoline of 20,000 BTU/lb and oil and diesel levels equal to 18,000 BTU/lb. All assumption and calculation are shown and attached to this plan.

Testing

Pre-qualification and Acceptance

The generator must submit a completed waste profile sheet that contains specific information on the physical and chemical nature of the material. In addition the generator must certify through TCLP analysis that the material is neither RCRA listed or define by characteristic waste codes.

A representative sample will be submitted, typically one quart of the soils, which is split for cement chemistry analysis, and the other half for total petroleum hydrocarbon concentrations determined according to EPA test method 418.1 (infrared).

Transportation

Soils will be delivered to the plant in covered trailers to eliminate moisture and other elements from contacting the load.

Sampling and Acceptance

Every load will be sampled and tested to assure concentration levels meet the defined limits in parts per million. In addition, an accumulated sample will be retained and a TCLP analysis done to represent no more than 2000 tons of soils received.

Storage and Handling

Holnam will process soil in one of the two methods described in our leachate control section of this application. Processing begins after gate testing and acceptance is complete.

Safety and Emergency Plan

The plant is equipped with a preventative maintenance plan, and fugitive dust plan, and a emergency spill prevention plan. Upon approval the requirements of petroleum contaminated soil will be included in those plans. In addition the Plant has a ongoing safety program which includes M.S.D.S. correspondence on purchased products, weekly and monthly safety meetings and a acting safety committee. Plant regulation and procedures will be maintained.

In addition emergency response kits have been purchased in the event that oil material is present in waste water discharges. Currently waste water discharge fees are under permit number WA0002232.

Leachate Control

Materials accepted may be handled in one of two methods. The first method is the clay wash system. This method includes an excellent leachate control system. Material are stockpiled on a concrete surface which drains back into a concrete lined soaking pond. Material and water contained in the pond are used within the process. Risk of fuel leaching from this method to soils or water is extremely low. The second method of handling is a dry handling method. Material are delivered in trucks and dumped on a concrete surface. The material is then placed into a concrete silo through a raw reclaim hopper and belt conveyors. The risk for leachate occurs only while material is on the concrete slab and is exposed to rain water. Plans are being made to contain all potential water runoff and place water back into concrete soaking pond. This collection system will not be complete until 1993. Therefore until this project is completed material will not be stockpiled without tarps to prevent exposure to rain. Effort will be made to transfer materials from trucks to silo, prior to rain exposure. We've also considered using drop trailer which would be tarped. This method remains under review and will be determined by the cost and number of trucks required.

Finally we have placed oil skimmers in all our storm water outfalls. In addition emergency response kits are located at each storm water outlet. Our goal is to eliminate any potential liability with regard to leachate control.

BTU Calculations

Converted to P.P.M.

1. Assume slurry with no - petroleum contaminated soils added has a base line of zero BTU per pound.

2. Maximum limit of slurry with petroleum contaminated soil is equal to 400 BTU per pound. As per agreement with (P.S.A.P.C.A.) Puget Sound Air Pollution and Control Agency.

3. Maximum amount of petroleum contaminated soil use in slurry would be 14% by weight. This is assuming 100% clay replacement is possible.

4. Therefore if 100lbs of slurry is ground we would use approximately 14 lbs of petroleum contaminated soils.

5. Allowable BTU's in slurry = 100 lb x 400 BTU/lb = 40,000 BTU's total. Gasoline = 20,000 BTU per pound. Therefore 40,000 ÷ 20,000 = 2 lbs. Total gasoline in slurry = 2 lbs.

6. If 2lbs of gasoline is acceptable, then concentration of petroleum contamination allowable is 2lbs in 14 lbs of soil.

   2lb/14lb = 14.2%
   This equates to 142,000 ppm.

7. 14.2% concentration is higher than most known soil concentrations presently on the market. Therefore we will start accepting materials at 0 - 8% fuel in order to be conservative on our program.

PPM Concentration
Acceptable

0 - 80,000 ppm
"Gasoline"

0 - 90,000 ppm
Diesel and oil